SUBCHAPTER A : DEFINITIONS

§117.10. Definitions.

Unless specifically defined in the Texas Clean Air Act or the General Rules of this title, the terms in this chapter shall have the meanings commonly used in the field of air pollution control. Additionally, the following meanings apply, unless the context clearly indicates otherwise.

Annual capacity factor - The total annual fuel consumed by a unit divided by the fuel which could be consumed by the unit if operated at its maximum rated capacity for 8,760 hours per year.

Applicable ozone nonattainment area - The following areas, as designated pursuant to the 1990 Federal Clean Air Act Amendments:

(A) Beaumont/Port Arthur ozone nonattainment area - An area consisting of Jefferson, Hardin, and Orange counties.

(B) Houston/Galveston ozone nonattainment area - An area consisting of Harris, Liberty, Waller, Chambers, Fort Bend, Galveston, Brazoria, and Montgomery counties.

Auxiliary steam boiler - Any combustion equipment within an electric power generating system, as defined in this section, that is used to produce steam for purposes other than generating electricity.

Average activity level for fuel oil firing - The product of an electric utility unit's maximum rated capacity for fuel oil firing and the average annual capacity factor for fuel oil firing for the period from January 1, 1990 to December 31, 1993.

Block one-hour average - An hourly average of data, collected starting at the beginning of each clock hour of the day and continuing until the start of the next clock hour.

Boiler or steam generator - Any combustion equipment fired with solid, liquid, and/or gaseous fuel used to produce steam.

Btu - British thermal unit.

Chemical processing gas turbine - A gas turbine that vents its exhaust gases into the operating stream of a chemical process.

Daily - A calendar day starting at midnight and continuing until midnight the following day.

Electric power generating system - All boilers, steam generators, auxiliary steam boilers, and gas turbines used in an electric power generating system which are owned or operated by a municipality or a Public Utility Commission of Texas regulated utility that are located within the Houston/ Galveston or Beaumont/Port Arthur ozone nonattainment areas.

Emergency standby gas turbine or engine - A gas turbine or engine operated only as a mechanical or electrical power source for a facility when the primary power source has been rendered inoperable, except due to power interruption pursuant to an interrupible power supply agreement.

Functionally identical replacement - A unit that performs the same function as the existing unit which it replaces, with the condition that the unit replaced must be physically removed or rendered permanently inoperable before the unit replacing it is placed into service.

Heat input - The chemical heat released due to fuel combustion in a unit, using the higher heating value of the fuel. This does not include the sensible heat of the incoming combustion air. In the case of carbon monoxide (CO) boilers, the heat input includes the enthalpy of all regenerator off-gases and the heat of combustion of the incoming carbon monoxide and of the auxiliary fuel. The enthalpy change of the fluid catalytic cracking unit regenerator off-gases refers to the total heat content of the gas at the temperature it enters the CO boiler, referring to the heat content at 60°F, as being zero.

High heat release rate - A ratio of boiler design heat input to firebox volume (as bounded by the front firebox wall where the burner is located, the firebox side waterwall, and extending to the level just below or in front of the first row of convection pass tubes) greater than or equal to 70,000 British thermal units (Btu) per hour per cubic foot.

Horsepower rating - The engine manufacturer's maximum continuous load rating at the lesser of the engine or driven equipment's maximum published continuous speed.

Industrial boiler or steam generator - Any combustion equipment, not including utility or auxiliary steam boilers as defined in this section, fired with liquid, solid, or gaseous fuel, that is used to produce steam.

International Standards Organization (ISO) - ISO standard conditions of 59°F, 1.0 atmosphere, and 60% relative humidity.

Lean-burn engine - A spark-ignited or compression-ignited, Otto cycle, diesel cycle, or two-stroke engine that is not capable of being operated with an exhaust stream oxygen concentration equal to or less than 0.5% by volume, as originally designed by the manufacturer.

Low annual capacity factor boiler, process heater, or gas turbine supplemental waste heat recovery unit - A commercial, institutional, or industrial boiler; process heater; or gas turbine supplemental waste heat recovery unit with maximum rated capacity:

(A) greater than or equal to 40 million Btu per hour (MMBtu/hr), but less than

100 MMBtu/hr and an annual heat input less than or equal to $2.8(10^{11})$ Btu per year (Btu/yr), based on a rolling 12-month average; or

(B) greater than or equal to 100 MMBtu/hr and an annual heat input less than or equal to $2.2(10^{11})$ Btu/yr, based on a rolling 12-month average.

Low annual capacity factor stationary gas turbine or stationary internal combustion engine - A stationary gas turbine or stationary internal combustion engine which is demonstrated to operate less than 850 hours per year, based on a rolling 12-month average.

Low heat release rate - A ratio of boiler design heat input to firebox volume less than 70,000 Btu per hour per cubic foot.

Major Source - Any stationary source or group of sources located within a contiguous area and under common control that emits or has the potential to emit:

(A) at least 25 tons per year (tpy) of nitrogen oxides (NO_x) and is located in the Houston/Galveston ozone nonattainment area;

(B) at least 50 tpy of NO_x and is located in the Beaumont/ Port Arthur ozone nonattainment area.

Maximum rated capacity - The maximum design heat input, expressed in MMBtu/hr, unless:

(A) the unit is a boiler, utility boiler, or process heater operated above the maximum design heat input (as averaged over any one-hour period), in which case the maximum operated hourly rate shall be used as the maximum rated capacity; or

(B) the unit is limited by operating restriction or permit condition to a lesser heat input, in which case the limiting condition shall be used as the maximum rated capacity; or

(C) the unit is a stationary gas turbine, in which case the manufacturer's rated heat consumption at the International Standards Organization (ISO) conditions shall be used as the maximum rated capacity, unless limited by permit condition to a lesser heat input, in which case the limiting condition shall be used as the maximum rated capacity; or

(D) the unit is a stationary, internal combustion engine, in which case the manufacturer's rated heat consumption at Diesel Equipment Manufacturer's Association conditions shall be used as the maximum rated capacity, unless limited by permit condition to a lesser heat input, in which case the limiting condition shall be used as the maximum rated capacity.

Megawatt (MW) rating - The continuous MW rating or mechanical equivalent by a gas turbine manufacturer at ISO conditions, without consideration to the increase in gas turbine shaft output and/or the decrease in gas turbine fuel consumption by the addition of energy recovered from exhaust heat.

Nitric acid - Nitric acid which is 30% to 100% in strength.

Nitric acid production unit - Any facility producing nitric acid by either the pressure or atmospheric pressure process.

Nitrogen oxides (NO_x) - The sum of the nitric oxide and nitrogen dioxide in the flue gas or emission point, collectively expressed as nitrogen dioxide.

Parts per million by volume (ppmv) - All ppmv emission limits specified in this rule are referenced on a dry basis.

Peaking gas turbine or engine - A stationary gas turbine or engine used intermittently to produce energy on a demand basis.

Plant-wide emission limit - The ratio of the total allowable nitrogen oxides mass emissions rate dischargeable into the atmosphere from affected units at a major source when firing at their maximum rated capacity to the total maximum rated capacities for those units.

Plant-wide emission rate - The ratio of the total actual nitrogen oxides mass emissions rate discharged into the atmosphere from affected units at a major source when firing at their maximum rated capacity to the total maximum rated capacities for those units.

Process heater - Any combustion equipment fired with liquid and/or gaseous fuel which is used to transfer heat from combustion gases to a process fluid, superheated steam, or water for the purpose of heating the process fluid or causing a chemical reaction. The term "process heater" does not apply to any unfired waste heat recovery heater that is used to recover sensible heat from the exhaust of any combustion equipment, or to boilers or steam generators as defined in this section.

Rich-burn engine - A spark-ignited, Otto cycle, four-stroke, naturally aspirated or turbocharged engine that is capable of being operated with an exhaust stream oxygen concentration equal to or less than 0.5% by volume, as originally designed by the manufacturer.

Stationary gas turbine - Any gas turbine system that is gas and/or liquid fuel fired with or without power augmentation. This unit is either attached to a foundation at a facility or is portable equipment operated at a specific facility for more than 90 days in any 12-month period. Two or more gas turbines powering one shaft shall be treated as one unit.

Stationary internal combustion engine - A reciprocating engine either attached to a foundation or if not so attached is operated or is intended to be operated at a single facility for more than six months, including any replacement engine for a specific application which lasts or is intended to last for more than six months.

System-wide emission limit - The ratio of the total allowable nitrogen oxides mass emissions rate dischargeable into the atmosphere from affected units in an electric power generating system or portion thereof located within a single ozone nonattainment area when firing at their maximum rated capacity average activity levels to the total maximum rated capacities sum of average activity levels for those units. For fuel oil firing, average activity levels shall be used in lieu of maximum rated capacities for the purpose of calculating the system-wide emission limit.

System-wide emission rate - The ratio of the total actual nitrogen oxides mass emissions rate discharged into the atmosphere from affected units in an electric power generating system or portion thereof located within a single ozone nonattainment area when firing at their maximum rated capacity to the total maximum rated capacities for those units. For fuel oil firing, average activity levels shall be used in lieu of maximum rated capacities for the purpose of calculating the system-wide emission rate.

Unit - Any boiler, steam generator, process heater, stationary gas turbine, or stationary internal combustion engine, as defined in this section, which is either:

(A) placed into service prior to November 15, 1992; or

(B) placed into service after June 9, 1993 as functionally identical replacement for an existing unit or group of units subject to the provisions of this chapter and limited to the cumulative maximum rated capacity of the units replaced.

Utility boiler or steam generator - Any combustion equipment owned or operated by a municipality or Public Utility Commission of Texas regulated utility, fired with solid, liquid, and/or gaseous fuel, used to produce steam for the purpose of generating electricity.

Wood - Wood, wood residue, bark, or any derivative fuel or residue thereof in any form, including, but not limited to, sawdust, sander dust, wood chips, scraps, slabs, millings, shavings, and processed pellets made from wood or other forest residues.